Amendments to the Claims

The listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) A process of producing a polyol monoester mixture comprising,

a. combining a fatty acid C_{1-5} alkyl ester, wherein said C_{1-5} alkyl ester is derived from a polyunsaturated vegetable oil containing less than about 2 percent of C18:3 or higher polyunsaturated fatty acids, said polyunsaturated vegetable oil selected from the group consisting of genetically modified oil, soybean oil, linseed oil, corn oil, sunflower oil, canola oil, rapeseed oil, coconut oil, palm kernel oil, palm oil, cottonseed oil, peanut oil, olive oil, tall oil, safflower oil and derivatives and mixtures thereof, with a polyol in the presence of a catalyst and borohydride, and

b. heating said combined fatty acid C_{1-5} alkyl ester and polyol in the presence of [[a]] said catalyst and borohydride,

wherein a polyol monoester mixture that is light in color is produced.

2. (Original) The process of claim 1 further comprising, distilling said fatty acid C_{1-5} alkyl ester to prepare a distilled fatty acid C_{1-5} alkyl ester prior to combining with said polyol.

3. (Original) The process of claim 2, wherein a molecular distillation is not performed to produce said monoester mixture.

4. (Original) The process of claim 2, wherein a decoloration step selected from the group consisting of carbon treatment and bleaching is not performed to produce said monoester mixture.

5. (Original) The process of claim 1, wherein said catalyst is selected from the group consisting of sodium methoxide, sodium ethoxide, potassium methoxide and potassium ethoxide.

6. (Original) The process of claim 5, wherein said catalyst is sodium methoxide.

7. (Original) The process of claim 1 wherein said heating is between about 70°C and about 160°C.

8. (Original) The process of claim 7, wherein said heating is between about 100°C and about 140°C.

9. (Canceled)

10. (Previously presented) The process of claim 1, wherein said vegetable oil is safflower oil, sunflower oil or corn oil.

11. (Canceled)

12. (Currently Amended) The process of claim 1 ~~claim 11~~, wherein said polyunsaturated vegetable oil contains less than about 2 percent linolenic acid.

13. (Original) The process of claim 12, wherein said polyunsaturated vegetable oil contains less than about 1 percent linolenic acid.

14. (Original) The process of claim 1, wherein said monoester mixture is a composition comprising at least about 80 percent polyol monoester.

15. (Original) The process of claim 1, wherein said monoester mixture has a Lovibond color below about 0.6 Red and below about 1.5 Yellow.

16. (Original) The process of claim 15, wherein said monoester mixture has a Lovibond color below about 0.4 Red and below about 1.0 Yellow.

17. (Original) The process of claim 1, wherein said borohydride is present in an amount between about 1.0 percent to about 0.0001 percent by weight relative to the weight of reactants and catalyst.

18. (Original) The process of claim 1, wherein said borohydride is selected from the group consisting of sodium borohydride, potassium borohydride and lithium borohydride.

19. (Original) The process of claim 1, wherein said polyol is selected from the group consisting of ethylene glycol, propylene glycol, diethylene glycol and dipropylene glycol.

20. (Original) The process of claim 19, wherein said polyol is propylene glycol.

21. (Original) The process of claim 1, wherein said fatty acid C_{1-5} alkyl ester is a fatty acid methyl ester.

22. (Original) The process of claim 1, wherein said polyol monoester mixture has a peroxide value below about 50.

23. (Original) The process of claim 22, wherein said polyol monoester mixture has a peroxide value below about 10.

24. (Original) A process of producing a monoester mixture comprising,

(a) distilling a fatty acid C_{1-5} alkyl ester containing less than about 2 percent C18:3 or higher polyunsaturated fatty acids to produce a distilled fatty acid C_{1-5} alkyl ester,

(b) combining said distilled fatty acid C_{1-5} alkyl ester with a polyol to produce a first mixture,

(c) introducing a catalyst and borohydride to said first mixture,

(d) heating said first mixture to a temperature between about 70°C and about 160°C to produce a second mixture,

(e) cooling and neutralizing said second mixture with an acid, and

(f) separating a monoester mixture from said second mixture,

wherein a monoester mixture is produced.

25. (Original) The process of claim 24, wherein a molecular distillation is not performed to produce said monoester mixture.

26. (Original) The process of claim 24, wherein a decoloration step selected from the group consisting of carbon treatment and bleaching is not performed to produce said monoester mixture.

27. (Original) The process of claim 24, wherein said catalyst is selected from the group consisting of sodium methoxide, sodium ethoxide, potassium methoxide and potassium ethoxide.

28. (Original) The process of claim 27, wherein said catalyst is sodium methoxide.

29. (Original) The process of claim 24, wherein said fatty acid C_{1-5} alkyl ester is derived from a vegetable oil selected from the group consisting of genetically modified oil, soybean oil, linseed oil, corn oil, sunflower oil, canola oil, rapeseed oil, coconut oil, palm kernel oil, palm oil, cottonseed oil, peanut oil, olive oil, tall oil, safflower oil and derivatives and mixtures thereof.

30. (Original) The process of claim 29, wherein said vegetable oil is safflower oil, sunflower oil or corn oil.

31. (Previously presented) The process of claim 29, wherein said vegetable oil is a polyunsaturated vegetable oil that contains less than about 2 percent of C18:3 or higher polyunsaturated fatty acids.

32. (Original) The process of claim 31, wherein said polyunsaturated vegetable oil contains less than about 2 percent of linolenic acid.

33. (Original) The process of claim 31, wherein said polyunsaturated vegetable oil contains less than about 1 percent of linolenic acid.

34. (Original) The process of claim 24, wherein said monoester mixture is a composition comprising at least about 80 percent polyol monoester.

35. (Original) The process of claim 24, wherein said monoester mixture has a Lovibond color lower than about 0.6 Red and below about 1.5 Yellow.

36. (Original) The process of claim 35, wherein said monoester mixture has a Lovibond color lower than about 0.4 Red and below about 1.0 Yellow.

37. (Original) The process of claim 24, wherein said borohydride is selected from the group consisting of sodium borohydride, potassium borohydride and lithium borohydride.

38. (Original) The process of claim 37, wherein said borohydride is sodium borohydride.

39. (Original) The process of claim 37, wherein said borohydride is present in an amount between about 1.0 percent to about 0.0001 percent by weight relative to the weight of reactants and catalyst.

40. (Original) The process of claim 24, wherein said monoester mixture has a peroxide value below about 50.

41. (Original) The process of claim 40, wherein said monoester mixture has a peroxide value below about 10.

42. (Original) A process of producing a monoester mixture comprising, combining a distilled fatty acid C_{1-5} alkyl ester of a polyunsaturated vegetable oil containing less than about 2 percent C18:3 or higher polyunsaturated fatty acids with propylene glycol in the presence of a catalyst and borohydride to produce a monoester mixture having a Lovibond color below about 0.6 Red and below about 1.5 Yellow.

43. (Original) The process of claim 42, provided that a molecular distillation, carbon decoloration or bleaching step is not performed to produce said monoester mixture.

44. (Original) The process of claim 43, wherein said catalyst is selected from the group consisting of sodium methoxide, sodium ethoxide, potassium methoxide and potassium ethoxide.

45. (Original) The process of claim 44, wherein said borohydride is selected from the group consisting of sodium borohydride, potassium borohydride and lithium borohydride.

46. (Original) The process of claim 45, wherein said borohydride is sodium borohydride.

47. (Original) The process of claim 46, wherein said sodium borohydride is present in an amount between about 1.0 percent to about 0.0001 percent by weight relative to the weight of reactants and catalyst.

48. (Original) The process of claim 47, wherein said monoester mixture has a peroxide value below about 50.

49. (Original) The process of claim 47, wherein said monoester mixture has a peroxide value below about 25.

50. (Original) The process of claim 49, wherein said monoester mixture contains at least about 80 percent propylene glycol monoester.

51. (Original) The process of claim 50, wherein said fatty acid C_{1-5} alkyl ester is a fatty acid methyl ester.

52. (Original) The process of claim 51, wherein said polyunsaturated vegetable oil is safflower oil, sunflower oil or corn oil.

53. (Original) The process of claim 52, wherein said Lovibond color is below about 0.4 Red and below about 1.0 Yellow.

54. (New) A process of producing a polyol monoester mixture comprising:

a. combining a distilled fatty acid C_{1-5} alkyl ester, wherein said C_{1-5} alkyl ester is derived from a vegetable oil selected from the group consisting of genetically modified oil, soybean oil, linseed oil, corn oil, sunflower oil, canola oil, rapeseed oil, coconut oil, palm kernel oil, palm oil, cottonseed oil, peanut oil, olive oil, tall oil, safflower oil and derivatives and mixtures thereof, with a polyol in the presence of a catalyst and borohydride, and

b. heating said combined fatty acid C_{1-5} alkyl ester and polyol in the presence of said catalyst and borohydride, thereby producing a polyol monoester mixture having a Lovibond color below about 0.6 Red and below about 1.5 Yellow;

wherein a decoloration step selected from the group consisting of carbon treatment and bleaching is not performed to produce said monoester mixture.

55. (New) The process of claim 54, wherein said monoester mixture has a Lovibond color below about 0.4 Red and below about 1.0 Yellow.

56. (New) The process of claim 54, wherein said borohydride is present in an amount between about 1.0 percent to about 0.0001 percent by weight relative to the weight of reactants and catalyst.

57. (New) The process of claim 54, wherein said borohydride is selected from the group consisting of sodium borohydride, potassium borohydride and lithium borohydride.

58. (New) The process of claim 54, wherein said catalyst is selected from the group consisting of sodium methoxide, sodium ethoxide, potassium methoxide and potassium ethoxide.

59. (New) The process of claim 54, wherein said polyol is selected from the group consisting of ethylene glycol, propylene glycol, diethylene glycol and dipropylene glycol.